

the sink shall be supplied with hot and cold potable running water. If immersion in sinks is impracticable because equipment is too large or for other reasons, equipment and utensils shall be cleaned and sanitized manually or by pressure-spray methods.

(G) Drainboards or easily movable utensil tables of adequate size shall be provided for proper storage and handling of soiled utensils prior to cleaning and for cleaned utensils following sanitizing. They shall be located so they do not interfere with proper use of the warewashing facilities.

(H) Equipment and utensils shall be pre-flushed or prescraped and, when necessary, presoaked to remove food particles and soil. Also the sinks shall be cleaned before use.

(I) When a three (3)-compartment sink is utilized for warewashing, the operation shall be conducted in the following sequence:

1. Equipment and utensils shall be thoroughly cleaned in the first compartment with a hot detergent solution that is kept clean and at a concentration indicated on the manufacturer's label;

2. Equipment and utensils shall be rinsed free of detergent and abrasives with clean water in the second compartment; and

3. Equipment and utensils shall be sanitized in the third compartment according to one (1) of the methods included in section (12) of this rule.

(J) When a two (2)-compartment sink is utilized for warewashing, one (1) of the following methods shall be used:

1. Equipment and utensils shall be thoroughly cleaned in the first compartment with a hot detergent solution that is kept clean and at a concentration indicated on the manufacturer's label and shall be sanitized in hot water in the second compartment in accordance with paragraph (12)(L)1. of this rule; or

2. Equipment and utensils shall be thoroughly cleaned in the first compartment with a hot detergent-sanitizer solution that is kept clean and at a concentration indicated on the manufacturer's label; and shall be sanitized in the second compartment in hot water in accordance with paragraph (12)(L)1. of this rule or with a solution containing that same detergent-sanitizer in accordance with paragraphs (12)(L)2.—5. of this rule.

(K) When pressure-spray methods are utilized for cleaning and sanitizing, the equipment and utensils shall be thoroughly flushed with a detergent-sanitizer solution until the article is free of visible food particles and soil. The detergent-sanitizer shall be used in accordance with the manufacturer's instructions and shall be of the type that does not require a potable water rinse when used according to those instructions.

(L) The food-contact surfaces of all equipment and utensils shall be sanitized by—

1. Immersion for at least one-half (1/2) minute in clean, hot water of a temperature of at least one hundred seventy degrees Fahrenheit (170°F) or seventy-seven degrees Celsius (77°C);

2. Immersion for at least one (1) minute in a clean solution containing at least fifty parts per million (50 ppm) of available chlorine as a hypochlorite and having a temperature of at least seventy-five degrees Fahrenheit (75°F) or twenty-four degrees Celsius (24°C);

3. Immersion for at least one (1) minute in a clean solution containing at least twelve and one-half parts per million (12.5 ppm) of available iodine, having a pH range which the manufacturer has demonstrated to be effective and at a temperature of at least seventy-five degrees Fahrenheit (75°F) or twenty-four degrees Celsius (24°C);

4. Immersion for at least one (1) minute in a clean solution containing at least two hundred parts per million (200 ppm) of a quaternary ammonium compound and having a temperature of at least seventy-five degrees Fahrenheit (75°F) or twenty-four degrees Celsius (24°C). The quaternary ammonium compound used shall have been compounded by the manufacturer to assure effectiveness in waters up to five hundred parts per million (500 ppm) hardness at-use concentration;

5. Immersion in a clean solution containing any other chemical sanitizing agent recognized by the Missouri Department of Health to be safe and effective and that will provide the equipment bactericidal effect of a solution containing at least fifty parts per million (50 ppm) of available chlorine as a hypochlorite at a temperature of at least seventy-five degrees Fahrenheit (75°F) or twenty-four degrees Celsius (24°C) for one (1) minute;

6. Treatment with steam free from materials or additives other than those recognized by the Missouri Department of Health to be safe and effective in the case of equipment too large to sanitize by immersion, but in which steam can be confined; or

7. In the case of equipment too large to sanitize by immersion, use rinsing, spraying or swabbing with a chemical sanitizing solution of at least twice the strength required for that particular sanitizing solution under paragraphs (12)(L)2., 3. and 5. of this rule.

(M) When hot water is used for sanitizing, the following equipment shall be provided and used:

1. An integral heating device or fixture shall be installed in, on or under the sanitizing compartment of the sink and shall be capable of maintaining the water at a temperature of at least one hundred seventy degrees Fahrenheit

(170°F) or seventy-seven degrees Celsius (77°C);

2. A numerically-scaled indicating thermometer, accurate to plus or minus three degrees Fahrenheit ( $\pm 3^\circ\text{F}$ ) or plus or minus one degree Celsius ( $\pm 1^\circ\text{C}$ ) and convenient to the sink for frequent checks of water temperature; and

3. Utensil racks or baskets of a size and design to permit complete immersion of utensils and equipment in the hot water.

(N) When chemicals are used for sanitization, they shall not have concentrations higher than the maximum permitted by the health authority and a test kit or other device shall be provided and used that measures the ppm concentration of the solution.

(O) Cleaning and sanitizing may be done by spray-type or immersion dishwashing machines or by any other type of machine or device if it is demonstrated that it thoroughly cleans and sanitizes equipment and utensils. These machines and devices shall be properly installed and maintained in good repair. Machines and devices shall be operated in accordance with manufacturers' instructions, and utensils and equipment placed in the machine shall be exposed to all dishwashing cycles. Automatic detergent dispensers, wetting-agent dispensers and liquid sanitizer injectors, if any, shall be properly installed and maintained.

(P) The pressure of final rinse water supplied to spray-type dishwashing machines shall not be less than fifteen (15) nor more than twenty-five (25) pounds per square inch measured in the water line immediately adjacent to the final rinse control valve. A one-quarter inch (1/4") iron pipe size (IPS) valve shall be provided immediately upstream from the final rinse control valve to permit checking the flow pressure of the final rinse water.

(Q) Machine or water-line mounted numerically-scaled indicating thermometers, plus or minus three degrees Fahrenheit ( $\pm 3^\circ\text{F}$ ) or plus or minus one degree Celsius ( $\pm 1^\circ\text{C}$ ) shall be provided to indicate the temperature of the water in each tank of the machine and the temperature of the final rinse water as it enters the manifold.

(R) Rinse water tanks shall be protected by baffles, curtains or other effective means to minimize the entry of wash water into the rinse water. Conveyors in dishwashing machines shall be accurately timed to assure proper exposure times in wash and rinse cycles in accordance with manufacturers' specifications attached to the machines.

(S) Drainboards shall be provided and be of adequate size for the proper handling of soiled utensils prior to washing and of cleaned utensils following sanitization and shall be located and constructed so they do not interfere

with the proper use of the dishwashing facilities. This does not preclude the use of easily movable dish tables for the storage of soiled utensils or the use of easily movable dish tables for the storage of clean utensils following sanitization.

(T) Equipment and utensils shall be flushed or scraped and, when necessary, soaked to remove gross food particles and soil prior to being washed in a dishwashing machine unless a prewash cycle is a part of the dishwashing machine operation. Equipment and utensils shall be placed in racks, trays or baskets or on conveyors in a way that food-contact surfaces are exposed to the unobstructed application of the detergent wash and the clean rinse waters and that permits free draining.

(U) Machines—single-tank, stationary-rack, door-type machines and spray-type glass washers—using chemicals for sanitization may be used, provided that the following standards are met:

1. The temperature of the wash water shall not be less than one hundred twenty degrees Fahrenheit (120°F) or forty-nine and one-half degrees Celsius (49.5°C);
2. The wash water shall be kept clean;
3. Chemicals added for sanitization purposes shall be automatically dispensed;
4. Utensils and equipment shall be exposed to the final chemical sanitizing rinse in accordance with manufacturers' specifications for time and concentration;
5. The chemical sanitizing rinse water temperature shall be not less than seventy-five degrees Fahrenheit (75°F) or twenty-four degrees Celsius (24°C) nor less than the temperature specified by the machine's manufacturer;
6. Chemical sanitizers used shall meet the requirements of the Missouri Department of Health; and
7. A test kit or other device that accurately measures the ppm concentration of the solution shall be available and used.

(V) Machines using hot water for sanitizing may be used provided that wash water and pumped rinse water shall be kept clean and water shall be maintained at not less than the temperature stated in the following listing:

1. Single-tank, stationary-rack, dual-temperature machine—wash temperature, one hundred fifty degrees Fahrenheit (150°F) or sixty-six degrees Celsius (66°C); final rinse temperature, one hundred eighty degrees Fahrenheit (180°F) or eighty-two degrees Celsius (82°C);
2. Single-tank, stationary-rack, single-temperature machine—wash temperature, one hundred sixty-five degrees Fahrenheit (165°F) or seventy-four degrees Celsius (74°C); final rinse temperature, one hundred sixty-five

degrees Fahrenheit (165°F) or seventy-four degrees Celsius (74°C);

3. Single-tank, conveyor machine—wash temperature, one hundred sixty degrees Fahrenheit (160°F) or seventy-one degrees Celsius (71°C); final rinse temperature, one hundred eighty degrees Fahrenheit (180°F) or eighty-two degrees Celsius (82°C);

4. Multitank, conveyor machine—wash temperature, one hundred fifty degrees Fahrenheit (150°F) or sixty-six degrees Celsius (66°C); pumped rinse temperature, one hundred sixty degrees Fahrenheit (160°F) or seventy-one degrees Celsius (71°C); final rinse temperature, one hundred eighty degrees Fahrenheit (180°F) or eighty-two degrees Celsius (82°C); and

5. Single-tank, pot, pan and utensil washer either stationary or moving rack—wash temperature, one hundred forty degrees Fahrenheit (140°F) or sixty degrees Celsius (60°C); final rinse temperature, one hundred eighty degrees Fahrenheit (180°F) or eighty-two degrees Celsius (82°C).

(W) All dishwashing machines shall be thoroughly cleaned at least once a day or more often when necessary to maintain them in a satisfactory operating condition.

(X) Unless used immediately after sanitization, all equipment and utensils shall be air dried. Towel drying shall not be permitted.

(Y) Retail food stores that do not have facilities for proper cleaning and sanitizing of utensils and equipment shall not prepare or package food or dispense unpackaged food other than raw fruits and raw vegetables.

(13) Cleaned and sanitized equipment and utensils shall be handled in a way that protects them from contamination.

(A) Cleaned and sanitized utensils and equipment shall be stored at least six inches (6") or one hundred fifty-two millimeters (152 mm) above the floor in a clean, dry location in a way that protects them from splash, dust and other means of contamination. The food-contact surfaces of fixed equipment shall also be protected from contamination. Equipment and utensils shall not be placed under exposed or unprotected sewer lines or under water lines that are leaking or on which condensed water has accumulated.

(B) Stored utensils shall be air dried, stored in a self-draining position and covered or inverted whenever practical.

(C) Single-service articles shall be stored in closed cartons or containers at least six inches (6") or one hundred fifty-two millimeters (152 mm) above the floor or on easily movable dollies, skids, racks or open-ended pallets. This storage shall protect the articles from contamination and shall not be located under exposed or unprotected sewer lines, or under

water lines that are leaking or on which condensed water has accumulated. Single-service articles shall be handled in a manner that prevents contamination of surfaces that may come in contact with food.

(D) Food equipment, utensils or single-service articles shall not be stored in locker rooms or toilet rooms or their vestibules or in garbage rooms or mechanical rooms.

(14) Sufficient potable water for the needs of the retail food store shall be provided from a source constructed, maintained and operated according to sections 640.100—640.140, RSMo (1986) and 10 CSR 60-2—10 CSR 60-12.

(A) All potable water not provided to a retail food store directly from the source by pipe shall be delivered in a bulk water transport system and shall be transferred to a closed water system. Both of these systems shall be constructed, maintained and operated according to applicable local ordinances and sections 640.100—640.140, RSMo (1986).

(B) Water under pressure at the required temperatures shall be provided to all fixtures and equipment that use water.

(C) Steam used in contact with food or food-contact surfaces shall be free from any materials or additives other than those recognized by the Missouri Department of Health as safe for use.

(15) All sewage, including liquid waste, shall be disposed of by a public sewerage system or by a sewage disposal system constructed, maintained and operated in a manner approved by the health authority. Nonwater-carried sewage disposal facilities are prohibited, except as permitted by the health authority.

(16) Plumbing shall be sized, installed and maintained according to the health authority or local ordinance. There shall be no cross-connection between the potable water supply and any other system containing water of unknown or questionable origin or contaminating or polluting substances.

(A) A nonpotable water system is permitted for air conditioning, equipment cooling and fire protection and shall be installed according to any applicable local ordinance. Nonpotable water shall not directly or indirectly contact food or equipment or utensils that contact food. The piping of any nonpotable water system shall be durably identified so that it is readily distinguishable from piping that carries potable water.

(B) The potable water system shall be installed to preclude the possibility of backflow. Devices shall be installed to preclude the possibility of backflow. Devices shall be installed to protect against backflow and

backsiphonage at all fixtures and equipment if an air gap at least twice the diameter of the water system inlet is not provided between the water supply inlet and the fixture's flood-level rim. No hose shall be attached to a faucet that is not equipped with a backflow prevention device.

(C) Grease traps, if used, shall be located to be easily accessible for cleaning.

(D) Garbage grinders, if used, shall be installed and maintained according to the health authority or any applicable local ordinance.

(E) Except for properly trapped open sinks, there shall be no direct connection between the sewerage system and any drains originating from equipment in which food, portable equipment or utensils are placed. When a warewashing machine is located within five feet (5') or one hundred fifty-two centimeters (152 cm) of a trapped floor drain, the warewasher waste outlet may be connected directly on the inlet side of a properly vented floor drain trap if permitted by local ordinance.

(17) Toilet facilities shall be installed according to the health authority or local ordinance, shall be conveniently located and shall be accessible to employees at all times. There shall be at least one (1) toilet facility and not less than the number required by local ordinance.

(A) Toilets and urinals shall be designed to be easily cleanable.

(B) Toilet rooms shall be completely enclosed and shall have tight-fitting, self-closing solid doors, except for fly-tight louvers that may be necessary for ventilation systems.

(C) Toilet facilities, including toilet fixtures and any related vestibule, shall be kept clean and in good repair. A supply of toilet tissue shall be provided at each toilet at all times. Easily cleanable receptacles shall be provided for waste materials. Toilet rooms used by women shall have at least one (1) covered waste receptacle.

(18) Handwashing facilities shall be installed according to local ordinance; there shall be at least one (1) handwashing facility and not less than the number required by local ordinance. Handwashing facilities shall be conveniently located to permit use by all employees in food preparation and warewashing areas. Handwashing facilities shall be accessible to employees at all times and shall also be located in or immediately adjacent to toilet rooms or their vestibules. Sinks used for food preparation or for warewashing shall not be used for washing of hands or for any other purpose.

(A) Each handwashing facility shall be provided with hot and cold water tempered by means of a mixing valve or combination

faucet. Any self-closing, slow-closing or metering faucet used shall be designed to provide a flow of water for at least fifteen (15) seconds without the need to reactivate the faucet. Steam mixing valves are prohibited at handwashing facilities.

(B) A supply of hand-cleansing soap or detergent shall be available at each handwashing facility. A supply of sanitary towels or a hand-drying device providing heated air shall be conveniently located near each handwashing facility. Common towels are prohibited. If disposable towels are used, easily cleanable waste receptacles shall be conveniently located near the handwashing facilities.

(C) Handwashing facilities, soap or detergent dispensers, hand-drying devices and all related facilities shall be kept clean and in good repair.

(19) Garbage and refuse shall be held in durable, easily cleanable, insect-resistant and rodent-resistant containers that do not leak and do not absorb liquids. Plastic bags and wet-strength paper bags may be used to line these containers. Bags and durable plastic garbage and refuse containers may be used for garbage and refuse storage inside the retail food store.

(A) Containers used in food-preparation and utensil-washing areas shall be kept covered during nonworking hours and after they are filled.

(B) Containers stored outside the establishment—including dumpsters, compactors and compactor systems—shall be easily cleanable; shall be provided with tight-fitting lids, doors or covers; and shall be kept covered when not in actual use. In containers designed with drains, drain plugs shall be in place at all times, except during cleaning.

(C) There shall be a sufficient number of containers to hold all the garbage and refuse that accumulates.

(D) Soiled containers shall be cleaned at a frequency that prevents insect and rodent attraction. Each container shall be thoroughly cleaned on the inside and outside in a way that does not contaminate food, equipment, utensils or food-preparation areas. Suitable facilities, detergent and hot water or steam shall be provided and used for cleaning containers. Liquid waste from compacting or cleaning operations shall be disposed of as sewage.

(E) Garbage and refuse on the premises shall be stored in a manner to make them inaccessible to insects and rodents. Outside storage of nonrodent-resistant plastic containers, unprotected plastic bags, wet-strength paper bags or baled units which contain garbage or refuse is prohibited. Cardboard or other packaging material not containing

garbage or food wastes need not be stored in covered containers.

(F) Garbage or refuse storage rooms, if used, shall be constructed of easily cleanable, nonabsorbent washable materials, shall be kept clean, shall be insect- and rodent-resistant and shall be large enough to store all the garbage and refuse containers necessitated by disposal pick-up frequency.

(G) Outside storage areas or enclosures, if used, shall be kept clean and shall be large enough to store all the garbage and refuse containers necessitated by disposal pick-up frequency. Garbage and refuse containers, dumpsters and compactor systems located outside shall be stored on or above a smooth surface of nonabsorbent material—such as concrete or machine-laid asphalt—that is kept clean and maintained in good repair.

(H) Garbage and refuse shall be disposed of often enough to prevent the development of objectionable odors and the attraction of insects and rodents.

(I) If garbage or refuse is burned on the premises, it shall be done by controlled incineration in accordance with local ordinance. Areas around incineration units shall be kept clean and orderly.

(20) Effective measures shall be utilized to minimize the entry, presence and propagation of rodents, flies, cockroaches and other insects. The premises shall be maintained in a condition that prevents the harborage or feeding of insects or rodents.

(A) Openings to the outside shall be effectively protected against the entry of rodents.

(B) Outside openings shall be protected against the entry of insects by tight-fitting, self-closing doors; closed windows; screening; controlled air currents; or other means. Screen doors shall be self-closing. Screens for windows, skylights, transoms, intake and exhaust air ducts and other openings to the outside shall be tight-fitting and free of breaks. Screening material shall be not less than sixteen (16) mesh to the inch. Controlled air currents are to be used when delivery doors or other outside entrances are open during product deliveries.

(21) Except as specified in subsection (21)(C) of this rule, floors and floor coverings of all food-preparation, food-storage and warewashing areas and the floors of all walk-in refrigerators, dressing rooms, locker rooms, toilet rooms and vestibules shall be constructed of smooth durable material such as sealed concrete, terrazzo, quarry tile, ceramic tile, durable grades of vinyl asbestos or plastic tile or tight-fitting wood impregnated with plastic and shall be maintained in good repair. Nothing in this section shall prohibit the use of antislip

floor covering in areas where necessary for safety reasons.

(A) Floors shall be provided with properly installed trapped drains if the floors are water flushed or receive discharges of water or other fluid wastes or are in areas where pressure-spray methods for cleaning are used. These floors shall be constructed only of sealed concrete, terrazzo, quarry tile, ceramic tile or similar materials and shall be graded to drain.

(B) In all establishments utilizing concrete, terrazzo, quarry tile, ceramic tile or similar flooring materials or where water-flush cleaning methods are used, the junctures between walls and floors shall be coved so as not to present an open seam of more than one thirty-second of an inch ( $1/32''$ ) or eight-tenths of a millimeter (0.8 mm).

(C) Carpeting, if used as a floor covering, shall be of closely woven construction, properly installed, easily cleanable and maintained in good repair. Carpeting shall not be used in food-preparation and warewashing areas, in food-storage areas or in toilet room areas where urinals or fixtures are located.

(D) Sawdust, wood shavings, granular salt, baked clay, diatomaceous earth or similar materials shall not be used as floor coverings; however, these materials may be used in amounts necessary for immediate spot clean-up of spills or drippage on floors.

(E) Mats and duckboards shall be of nonabsorbent, grease-resistant materials; shall be of a size, design and construction to facilitate cleaning; and shall be maintained in good repair.

(F) Exposed utility service lines and pipes shall be installed in a way that does not obstruct or prevent cleaning of the floor. In all new or extensively remodeled establishments, installation of exposed horizontal utility service lines and pipes on the floor is prohibited.

(22) Walls and ceilings—including doors, windows, skylights and similar closures—shall be maintained in good repair.

(A) The walls, wall coverings and ceilings of walk-in refrigeration units, food-preparation areas, warewashing areas and toilet rooms and their vestibules shall be smooth, nonabsorbent and easily cleanable. Concrete or pumice blocks and bricks used for interior wall construction in these locations shall be finished and sealed to provide a smooth easily cleanable surface.

(B) Studs, joists and rafters shall not be exposed in those areas listed in subsection (22)(A) of this rule. If exposed in other rooms or areas, they shall be finished to provide a cleanable surface.

(C) Utility service lines and pipes shall not be unnecessarily exposed on walls or ceilings in those areas listed in subsection (22)(A) of this rule. Exposed utility service lines and pipes shall be installed in a way that does not obstruct or prevent cleaning of the walls and ceilings.

(D) Light fixtures, vent covers, wall-mounted fans, decorative materials and similar attachments to walls and ceilings shall be easily cleanable and shall be maintained in good repair.

(E) Wall- and ceiling-covering materials shall be constructed with a smooth easily cleanable surface and installed in a manner that prevents the entrapment and build-up of food or any debris.

(23) Cleaning of floors, walls and ceilings shall be done as often as necessary, but preferably during periods when the least amount of food is exposed, such as during after-business hours. Only dustless methods of cleaning floors, walls and ceilings shall be used, such as vacuum cleaning, wet cleaning, treated dust mops or the use of dust-arresting sweeping compounds with brooms.

(A) Floors, mats, duckboards, walls, ceilings and attachments—such as light fixtures, vent covers, wall-mounted fans and similar equipment—and decorative articles—such as signs and advertising materials—shall be kept clean.

(B) At least one (1) service sink or curbed cleaning facility with a floor drain shall be provided and used for the cleaning of mops or similar wet floor-cleaning tools and for the disposal of mop water or similar liquid wastes. Handwashing or warewashing facilities or food preparation sinks shall not be used for this purpose.

(24) Permanently-fixed artificial light sources shall be installed to provide at least twenty (20) footcandles or two hundred fifteen (215) lux of light on all food-preparation surfaces and at warewashing work levels.

(A) Permanently-fixed artificial light sources shall be installed to provide, at a distance of thirty inches (30") or seven hundred sixty-two millimeters (762 mm) from the floor—

1. At least twenty (20) footcandles or two hundred fifteen (215) lux of light in sales areas, utensil- and equipment-storage areas and in handwashing and toilet areas; and

2. At least ten (10) footcandles or one hundred eight (108) lux of light in walk-in refrigeration units, dry food-storage areas and in all other areas.

(B) Lamps located over or within food-storage, food-preparation and food-display facilities and facilities where utensils and

equipment are cleaned and stored shall be shielded, coated or otherwise shatter-resistant.

(C) Infrared or other heat lamps shall be protected against breakage by a shield surrounding and extending beyond the bulb, leaving only the face of the bulb exposed.

(25) All rooms shall have sufficient ventilation to keep them free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke and fumes. Ventilation systems shall be installed and operated according to the health authority or local ordinance and, when vented to the outside, shall not create a harmful or unlawful discharge. Intake and exhaust air ducts shall be maintained to prevent the entrance of dust, dirt and other contaminating materials.

(26) If employees routinely change clothes within the establishment, rooms or areas shall be designated and used for that purpose. These designated rooms or areas shall not be used for food preparation, food storage, food display, warewashing or storage of utensils and equipment. Lockers or other suitable facilities shall be provided and used for the orderly storage of employee clothing and other belongings. Lockers or other suitable facilities may be located only in the designated dressing rooms or areas or in food-storage rooms or areas containing only completely packaged food or packaged single-service articles.

(27) Only those poisonous or toxic materials necessary and intended for the maintenance of the establishment—including the cleaning and sanitization of equipment and utensils and the control of insects and rodents—shall be present in retail food stores, except those items being stored or displayed for retail sale as described in subsection (27)(E) of this rule.

(A) Containers of poisonous or toxic materials necessary for operational maintenance of the establishment shall be prominently and distinctly labeled in accordance with the health authority. Small working containers of bulk cleaning agents shall be individually labeled for easy identification of contents.

(B) Poisonous or toxic materials necessary for the maintenance of the establishment consist of two (2) categories. The first category is insecticides and rodenticides and the second category is detergents, sanitizers, related cleaning or drying agents, caustics, acids, polishes and other chemicals. Materials in each of these two (2) categories shall be stored and located so they are physically separated from each other; shall be stored in cabinets or in similar physically separated compartments or facilities used for no other purpose; and—to preclude potential contamination—shall not be stored above or intermingled with food, food



equipment, utensils or single-service articles, except that this latter requirement does not prohibit the convenient availability of detergent-sanitizers or sanitizers at warewashing facilities.

(C) Sanitizers, cleaning compounds or other compounds intended for use on food-contact surfaces shall not be used in a way that leaves a toxic residue on such surfaces, nor in a way that constitutes a hazard to employees or other persons.

(D) A poisonous or toxic material shall not be used in a way that contaminates food, equipment or utensils, nor in a way other than in full compliance with the manufacturer's labeling.

(E) Poisonous or toxic materials stored or displayed for retail sale shall be separated from food and single-service articles by spacing, partitioning or dividers. These materials shall not be stored or displayed above food or single-service articles.

(F) Retail food store employee first-aid supplies and personal medications shall be stored in a way that prevents them from contaminating food and food-contact surfaces.

(28) Retail food stores and all parts of the property used in connection with operations of the establishment shall be reasonably free of litter and articles not essential to the operation or maintenance of the establishment.

(A) The walking and driving surfaces of all exterior areas of retail food stores shall be surfaced with concrete or asphalt or with gravel or similar material effectively treated to facilitate maintenance and minimize dust. These surfaces shall be graded to facilitate drainage.

(B) No operation of a retail food store shall be conducted in any room used as living or sleeping quarters. Retail food store operations shall be separated from any living or sleeping quarters by complete partitioning and solid, self-closing doors.

(C) If provided, laundry facilities in a retail food store shall be restricted to the washing and drying of linens and work clothes used in the operation. If the items are laundered on the premises, an electric or gas dryer shall be provided and used.

(D) Separate rooms shall be provided for laundry facilities with this these operations may be conducted in storage rooms containing only packaged foods or packaged single-service articles.

(E) Clean work clothes and linens, including articles such as wiping cloths, shall be stored in a clean place and protected from contamination until used.

(F) Soiled work clothes and linens, including articles such as wiping cloths, shall be kept in nonabsorbent containers or washable

laundry bags until removed for laundering and shall be stored to prevent contamination of food equipment and utensils.

(G) Maintenance and cleaning tools such as brooms, mops, vacuum cleaners and similar equipment shall be maintained in good repair and stored in a way that does not contaminate food, utensils, equipment or linens and shall be stored in an orderly manner to facilitate the cleaning of that storage location.

(H) Live animals shall be excluded from within the retail food store operational areas and from immediately adjacent areas inside the store under the control of the permit holder. This exclusion does not apply to edible fish, crustacea, shellfish or fish in aquariums.

1. Live or dead fish bait shall be stored separately from food or food products.

2. Patrol dogs accompanying security or police officers shall be permitted in offices, storage areas and outside store premises. Sentry dogs may be permitted to run loose in outside fenced areas for security reasons. Guide dogs accompanying blind persons shall be permitted in sales areas.

3. While on duty, persons employed in the food operational areas of an establishment shall not care for or handle any pets or patrol/sentry dogs.

(29) When the health authority has reasonable cause to suspect possible disease transmission by an employee of a food-service establishment, it may secure a morbidity history of the suspected employee or make any other investigation as indicated and shall take appropriate action. The health authority may require any or all of these measures:

(A) The immediate exclusion of the employee from employment in food-service establishments;

(B) The immediate closing of the food-service establishment concerned until, in the opinion of the health authority, no further danger of disease outbreak exists;

(C) Restriction of the employee's services to some area of the establishment where there would be no danger of transmitting disease; and

(D) Adequate medical examination of the suspected employee and of other employees, and laboratory examination of the body discharges of the suspected employee and of other employees.

*Auth: sections 192.005.2., 192.020 and 196.045, RSMo (1986). Original rule filed Feb. 4, 1986, effective April 25, 1986. Amended: Filed July 18, 1989, effective Sept. 28, 1989.*

## 19 CSR 20-1.030 Sanitation and Production Standards for Frozen Desserts

*PURPOSE: This rule defines and establishes sanitation and production standards for frozen desserts as they relate to public health.*

*Editor's Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.*

(1) The following definitions shall apply in the interpretation and enforcement of this rule:

(A) A frozen dessert shall mean a frozen product made from any of the following: milk solids or other milk products, water, organic acids, natural or artificial flavoring, sweetening agents, and harmless coloring together with any safe or suitable functional ingredient. Frozen desserts shall include ice cream, frozen custard, ice milk, sherbet, water ice, mellorine or any other frozen product intended to be eaten in its frozen state, but which in its unfrozen, but otherwise edible state, is recognized by a common or usual name for a nonstandardized food. Any of these frozen products which are prepared for special dietary use are also included as a frozen dessert;

(B) The term mix shall mean the unfrozen combination of all ingredients of a frozen dessert with or without fruits, fruit juices, candy, nut meats, flavor or harmless color;

(C) The terms pasteurization and pasteurized shall refer to the process of heating in approved and properly operated equipment every particle of mix to one (1) of the following minimum temperatures and holding at this temperature continuously for the specified time: one hundred fifty-five degrees Fahrenheit (155°F) and holding at that temperature for at least thirty (30) minutes; or one hundred seventy-five degrees Fahrenheit (175°F) and holding at that temperature for at least twenty-five (25) seconds; or any other method or process demonstrated to be equally efficient and approved by the Missouri Department of Health;

(D) A frozen dessert processor is any person who freezes any pasteurized mix into semi-solid or solid form for retail distribution or sale as a frozen dessert;

(E) A frozen dessert distributor is any person who offers for sale or sells to another any frozen dessert or mix for human consumption;



(F) A frozen dessert plant is any place or premises where frozen desserts or mixes are processed, pasteurized, frozen or packaged for distribution or sale;

(G) An official laboratory is a biological, chemical or physical laboratory which is under the direct supervision of the state or local health authority and which has been approved by the appropriate state laboratory agency;

(H) Health authority shall mean the director of the Department of Health or his/her designated representative;

(I) The word person shall mean an individual, partnership, corporation, company, firm, trustee, cooperative or association;

(J) Adulterated shall mean the condition of a frozen dessert when it contains any poisonous or harmful substance in a quantity which may render it injurious to health; when it contains any added poisonous or harmful substance for which no safe tolerance has been established by regulation or in excess of that tolerance if one has been established; when it consists in whole or in part of any substance unfit for human consumption; when it has been processed, prepared, packaged or held under unsanitary conditions whereby it may have been rendered injurious to health; when its container is composed in whole or in part of any toxic or harmful substance which may render the contents injurious to health or when it contains any substance that does not conform with section 196.856, RSMo (1986) or this rule;

(K) Misbranded shall mean the presence of any false or misleading written, printed or graphic matter upon a container of frozen dessert or accompanying a frozen dessert or any label which violates any applicable federal, state or local labeling laws or regulations; and

(L) Confectionary shall mean candy, cakes, cookies and glazed fruits.

(2) All frozen dessert processors and frozen dessert plants shall be inspected at least annually to determine eligibility for license. The inspection procedure for renewal of license shall be the same as that for initial licensing.

(3) Raw milk and raw milk products used in the manufacture of frozen desserts shall meet at least the minimum requirements as defined in the Missouri Department of Agriculture Farm Certification Regulations.

(4) No ingredients shall be used in processing frozen desserts which are adulterated within the meaning of section 196.070, RSMo (1986).

(5) At irregular intervals during any six (6)-month period at least four (4) samples of frozen desserts or pasteurized mix shall be taken and examined by an official laboratory

designated by the Missouri Department of Health or its authorized representative. Pasteurized mix and frozen desserts shall not exceed fifty thousand (50,000) standard plate count or ten (10) coliform per gram in three (3) out of the last five (5) consecutive samples taken by the health authority.

(6) The floors of all rooms in which frozen desserts or frozen dessert mix or the ingredients for them are processed or frozen or in which containers and utensils are washed shall be constructed of concrete or other equally impervious and easily cleaned material; and shall be smooth, properly drained, provided with trap drains and kept clean and in good repair. Cold storage rooms used for storing frozen desserts, milk, cream, milk products, frozen fruits, frozen eggs and comparable ingredients need not be provided with floor drains, but the floors shall be sloped to drain to one (1) or more exits and shall be kept clean. Dry storage rooms need not be drained and tight wood-floor construction is optional.

(7) Walls and ceilings of rooms in which frozen dessert mix, frozen desserts or ingredients for them are processed or frozen or in which containers or utensils are washed shall have a smooth, washable, light-colored surface and shall be kept clean and in good repair.

(8) Effective means shall be provided to prevent flies and rodents from entering a frozen dessert plant. All doors shall be self-closing.

(9) All rooms shall be well lighted and ventilated. All exposed working surfaces shall have at least twenty (20) footcandles of light as measured by a light meter. Dry storage and cold storage rooms shall have at least ten (10) footcandles of light at a distance of thirty inches (30") from the floor.

(10) The pasteurization, processing, cooling, freezing and packaging operations must be separated by solid partitions from other plant operations. Unless prohibited by existing construction, plants receiving milk products or frozen dessert mix in bulk transport tanks shall provide a room for receiving, cleaning and sanitizing transport tanks. Unless all milk products and mix are received in bulk transport tanks, a receiving room that is separate from rooms already listed in this section of this rule shall be required. Rooms in which milk products, frozen dessert ingredients or frozen desserts are handled, processed, sorted or packaged or in which product-contact containers, utensils and equipment are washed or stored shall not open directly into any room used for domestic purposes. All milk, milk

products, mix or frozen desserts that have overflowed, leaked or been spilled shall be discarded.

(11) Every frozen dessert plant shall have conveniently located toilet facilities. Toilet rooms shall not open directly into any room in which milk products, frozen desserts or frozen dessert ingredients are processed or packaged. Toilet rooms shall be completely enclosed and shall have tight-fitting self-closing doors. Dressing rooms and toilet rooms shall be kept clean, in good repair and well ventilated.

(12) The water supply shall be easily accessible, adequate and of a safe and sanitary quality.

(13) Convenient handwashing facilities shall be provided, including hot and cold or warm running water, soap and individual sanitary towels or other approved hand-drying devices. Handwashing facilities shall be kept in a clean condition and in good repair.

(14) All piping and fittings used to conduct milk, cream, milk products, mix or frozen desserts shall be of sanitary design and construction. Mix, frozen desserts, fluid milk products and ingredients shall be conducted from one (1) piece of equipment to another only by sanitary piping and fittings.

(15) All multiuse containers, utensils and equipment which come in contact with mix, frozen desserts, milk, cream and milk products and other ingredients shall be smooth, impervious, noncorrodible, nontoxic, relatively low-absorbent material. Equipment shall be designed and installed so it is easily cleaned and shall be kept in good repair. All single-service containers, closures, gaskets and other articles shall be manufactured, packaged, transported and handled in a sanitary manner.

(16) All waste shall be disposed of in a sanitary manner. All plumbing and appurtenances to plumbing shall be so designed and installed in a manner that prevents the contamination of mix or frozen desserts or any ingredient, utensil, container or equipment by drip, condensation or backflow.

(17) All multiflow utensils, containers and equipment shall be thoroughly cleaned before each use. All product-contact surfaces of utensils, containers and equipment shall be subjected effectively to an approved bactericidal process immediately prior to use. Multiuse containers used for the transportation of mix shall be thoroughly rinsed immediately after emptying. Cleaning in place shall be used only on equipment and pipeline